

# **The present status and challenges for cultivation of castor in Brazil**

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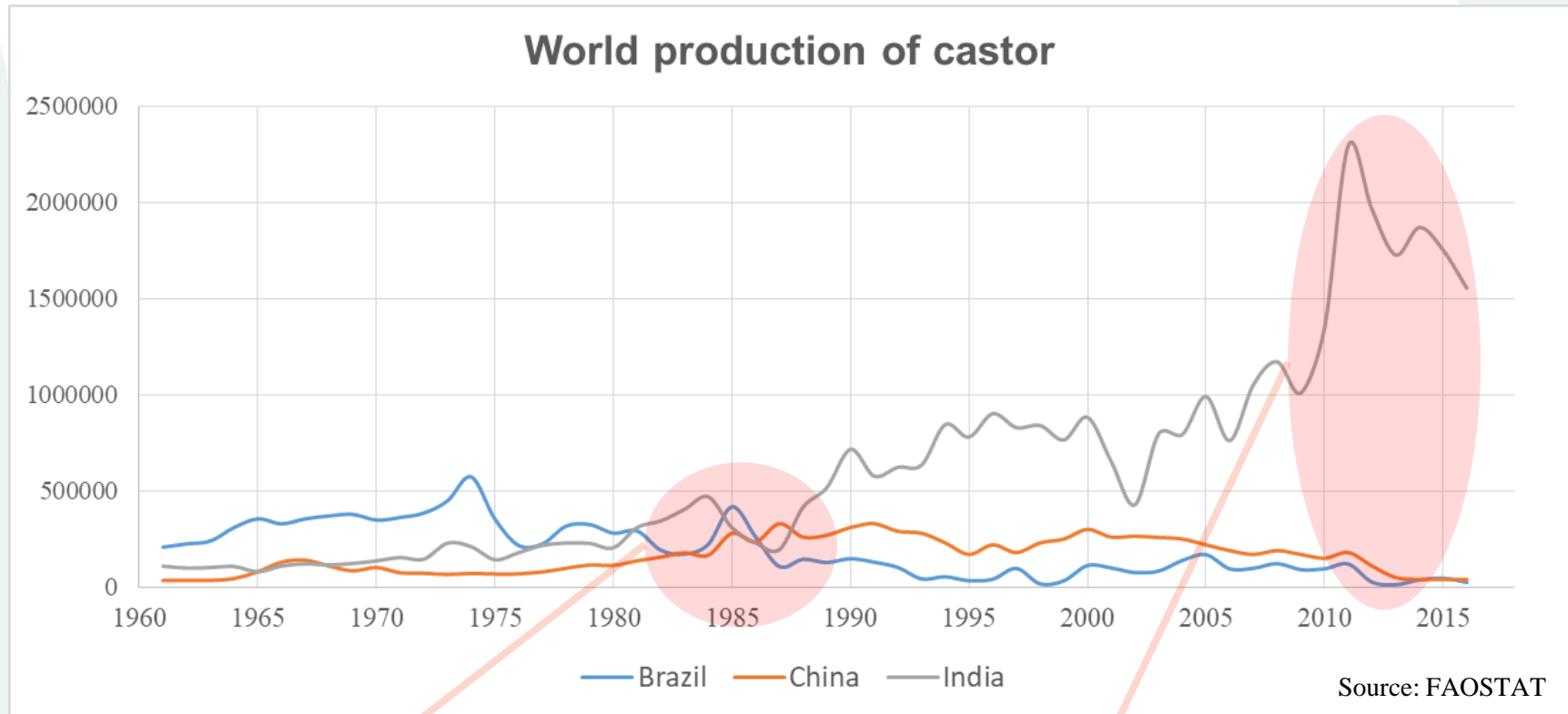


# Barriers for minor industrial crops

Minor industrial crops need to overcome many barriers before they find acceptance in the market.

Castor is progressing in the transition from manual to mechanized harvest in Brazil.

# Phases of castor production



Development of hybrid  
seed production

Increased labor cost  
for harvesting

# Recent developments of castor

- ✓ Protocol for weed management
- ✓ Header for combine harvest



# Potential growers

- ✓ Very large farms with completely mechanized operation
- ✓ High use of technology, machinery and inputs
- ✓ Need for diversification of the soybean-corn-cotton system





# Suppression of nematodes

- ✓ Rotation with castor reduces the population of two nematodes species that are causing heavy losses
- ✓ The increased yield in the following crops can result in more profit than the income from castor



# New challenges for castor

## Harvesting

- ✓ Seed loss in harvest operation is too high (~30%)
- ✓ Demand for crop termination for preparation for harvest
- ✓ Improvements in the header
- ✓ Breeding for reduced shattering





# New challenges for castor

## Disease (gray mold)

- ✓ Current protocols are unreliable
- ✓ Risks are very high
- ✓ Genetic resistance to gray mold is not progressing
- ✓ Fungicides are efficient, but they are not hitting the target





# New challenges for castor

## Acceptance of a new crop

- ✓ Resistance to introduce a new crop into a complex system
- ✓ Unfamiliar Market (How prices are defined? What it is used for?)
- ✓ Infrastructure and logistics
- ✓ Potential growth to million ha – how large is the market?



# Ricin-free castor

- ✓ Recently developed ricin-free plant (transgenic)
- ✓ Still under the development – deregulation not started yet
- ✓ Option particularly for countries with restrictions to ricin
- ✓ Added value to castor meal – feed use



**Thank you!**

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